

Explanation based on Article 19(1)

We amended claims 7-9, 13 and 14 to be independent claims, amended claims 1, 3 and 4, and deleted claim 2. The invention in accordance with claim 1 relates to an induction heating apparatus having "a stationary plate having electrical insulation comprising an electrostatic shield having conductivity and connection portions for connecting the electrostatic shield to a low-potential portion in which the connection points are secured to the electrostatic shield in a state wherein the connection points are made stationary, installed to the induction heating coil base and provided between a top plate and an induction heating coil". It is not described and even suggested by any related documents listed in the international search report, JP54-132158, JP6-5357A, JP61-27087A, 4-33803 (5-87824) and 60-67355 (61-183524), the configuration of providing on the stationary plate installed to the induction heating coil base with the electrostatic shield and connection portions for connecting the electrostatic shield to a low-potential portion in which the connection points are secured to the electrostatic shield in a state wherein the connection points are made stationary. With this configuration, the present invention has an

effect such that "it is possible to ensure inexpensively connection with high reliability less susceptible to the influences of vibration of the apparatus, drop impact of the apparatus, etc", which is no description in the cited documents.

Article 19 Amendment

Claims

1. (Amended) An induction heating apparatus comprising an induction heating coil for induction heating a material to be heated,

a top plate provided between said material to be heated and said heating coil,

driving means for supplying a high-frequency current to said induction heating coil,

an induction heating coil base for supporting said induction heating coil, and

a stationary plate having electrical insulation, comprising an electrostatic shield having conductivity and connection portions for connecting said electrostatic shield to a low-potential portion in which the connection points are secured to said electrostatic shield in a state wherein the connection points are made stationary, installed to said induction heating coil base, and provided between said top plate and said induction heating coil.

2. (Deleted)

3. (Amended)An induction heating apparatus in accordance with claim 1, wherein said connection portion is integrated with a connection terminal that can be connected to and disconnected from a connection wire, and said connection terminal is configured so as to be secured to said stationary plate.

4. (Amended)An induction heating apparatus in accordance with any one of claims 1 or 3, wherein a stationary plate cover having electrical insulation and covering said electrostatic shield is provided on the opposite side of said stationary plate.

5. An induction heating apparatus in accordance with claim 4, wherein said stationary plate cover is firmly secured to said stationary plate so as to cover part or whole of said electrostatic shield and said connection portions.

6. An induction heating apparatus in accordance with claim 4, wherein an insulator in a half-cured state is used for at least one of said stationary plate and said stationary plate cover, and heated and cured after assembly to attain integration.

7. (Amended)An induction heating apparatus

comprising an induction heating coil for induction heating a material to be heated, a top plate provided between said material to be heated and said heating coil, driving means for supplying a high-frequency current to said induction heating coil, and an electrostatic shield having conductivity, provided between said top plate and said induction heating coil and connected to a low-potential portion, wherein a stationary plate having electrical insulation is provided between said top plate and said induction heating coil, said stationary plate is provided with said electrostatic shield and connection portions connected to said electrostatic shield, and said electrostatic shield is connected to said low-potential portion via said connection portions,

wherein a stationary plate cover having electrical insulation and covering said electrostatic shield is provided on the opposite side of said stationary plate, and

wherein raw mica containing an adhesive is used for at least one of said stationary plate and said stationary plate cover, and heated after assembly to attain integration.

8. (Amended)An induction heating apparatus comprising an induction heating coil for induction

heating a material to be heated, a top plate provided between said material to be heated and said heating coil, driving means for supplying a high-frequency current to said induction heating coil, and an electrostatic shield having conductivity, provided between said top plate and said induction heating coil and connected to a low-potential portion, wherein a stationary plate having electrical insulation is provided between said top plate and said induction heating coil, said stationary plate is provided with said electrostatic shield and connection portions connected to said electrostatic shield, and said electrostatic shield is connected to said low-potential portion via said connection portions,

wherein said stationary plate cover having electrical insulation and covering said electrostatic shield is provided on the opposite side of said stationary plate, and

wherein inorganic fiber containing an adhesive is used for at least one of said stationary plate and said stationary plate cover, and heated after assembly to attain integration.

9. (Amended)An induction heating apparatus comprising an induction heating coil for induction heating a material to be heated, a top plate provided

between said material to be heated and said heating coil, driving means for supplying a high-frequency current to said induction heating coil, and an electrostatic shield having conductivity, provided between said top plate and said induction heating coil and connected to a low-potential portion, wherein a stationary plate having electrical insulation is provided between said top plate and said induction heating coil, said stationary plate is provided with said electrostatic shield and connection portions connected to said electrostatic shield, and said electrostatic shield is connected to said low-potential portion via said connection portions, and

wherein said connection portion is provided close to the winding on the low-potential side, instead of the winding on the high-potential side, of said induction heating coil, with reference to the potential to which said electrostatic shield is connected.

10. An induction heating apparatus in accordance with claim 3, wherein part of said connection terminal is bent and said connection terminal is secured to said stationary plate.

11. An induction heating apparatus in

accordance with claim 3, wherein said connection terminal is securely connected to said electrostatic shield using a conductive adhesive.

12. An induction heating apparatus in accordance with claim 3, wherein said connection terminal is retained in said induction heating coil base for supporting said induction heating coil.

13. (Amended) An induction heating apparatus comprising an induction heating coil for induction heating a material to be heated, a top plate provided between said material to be heated and said heating coil, driving means for supplying a high-frequency current to said induction heating coil, and an electrostatic shield having conductivity, provided between said top plate and said induction heating coil and connected to a low-potential portion, wherein a stationary plate having electrical insulation is provided between said top plate and said induction heating coil, said stationary plate is provided with said electrostatic shield and connection portions connected to said electrostatic shield, and said electrostatic shield is connected to said low-potential portion via said connection portions, and wherein a slit portion is provided at least

at one position of said stationary plate from its external circumference.

14. (Amended) An induction heating apparatus comprising an induction heating coil for induction heating a material to be heated, a top plate provided between said material to be heated and said heating coil, driving means for supplying a high-frequency current to said induction heating coil, and an electrostatic shield having conductivity, provided between said top plate and said induction heating coil and connected to a low-potential portion, wherein a stationary plate having electrical insulation is provided between said top plate and said induction heating coil, said stationary plate is provided with said electrostatic shield and connection portions connected to said electrostatic shield, and said electrostatic shield is connected to said low-potential portion via said connection portions,

wherein a stationary plate cover having electrical insulation and covering said electrostatic shield is provided on the opposite side of said stationary plate, and

wherein a slit portion is provided at least at one position of said stationary plate cover from its external circumference.

15. An induction heating apparatus in accordance with claim 3, wherein said connection terminal is secured to said stationary plate with a crimping member and electrically connected to said electrostatic shield.